INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2005/050680

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01S3/109 G02F1/377

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01S G02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	"Upconverting Tm3+ doped Ba-Y-Yb-F thin film waveguides for visible and ultraviolet light sources" APPLIED PHYSICS LETTERS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 66, no. 4, 23 January 1995 (1995-01-23), pages 410-412, XP012013192 ISSN: 0003-6951 the whole document	1-10

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[X] Further documents are listed in the continuation of box C.

[ ] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
3 May 2005	17/05/2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Jobst, B

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International Application No
PCT/IB2005/050680

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FAVRE A ET AL: "Fabrication and characterization of planar and channel waveguides in bismuth-based oxide glasses" RARE-EARTH-DOPED MATERIALS AND DEVICES VII 28-30 JAN. 2003 SAN JOSE, CA, USA, vol. 4990, 2003, pages 103-110, XP002325968 Proceedings of the SPIE - The International Society for Optical Engineering SPIE-Int. Soc. Opt. Eng USA ISSN: 0277-786X the whole document	1-10
X	HARWOOD D W J ET AL: "A 1317 nm neodymium doped fluoride glass waveguide laser" PROCEEDINGS OF 26TH EUROPEAN CONFERENCE ON OPTICAL COMMUNICATION 3-7 SEPT. 2000 MUNICH, GERMANY, vol. 2, 2000, pages 191-192 vol.2, XP009046818 ECOC 2000. 26th European Conference on Optical Communication VDE Verlag Berlin, Germany ISBN: 3-8007-2567-3 the whole document	1-10
A	BURKHALTER R ET AL: "Growing of bulk crystals and structuring waveguides of fluoride materials for laser applications" PROGRESS IN CRYSTAL GROWTH AND CHARACTERIZATION OF MATERIALS, ELSEVIER PUBLISHING, BARKING, GB, vol. 42, no. 1-2, 2001, pages 1-64, XP004249216 ISSN: 0960-8974 paragraph '03.4!	7,9
X	LOUSTEAU J ET AL: "Fluoride glass planar waveguides for active applications" MATERIALS SCIENCE AND ENGINEERING B, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. 105, no. 1-3, 15 December 2003 (2003-12-15), pages 74-78, XP004518422 ISSN: 0921-5107 the whole document	1
X	FUJIHARA S ET AL: "Sol-gel processing of LaF3 thin films" Journal of the Ceramic Society of Japan Ceramic Soc. Japan Japan, vol. 106, no. 1, January 1998 (1998-01), pages 124-126, XP009046810 ISSN: 0914-5400 the whole document	1

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PCT/IB2005/050680

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	VASILIEF I ET AL: "Frequency modulation spectroscopy of erbium-cerium codoped fluoride glasses for optical amplifiers" OPTICAL MATERIALS, ELSEVIER SCIENCE PUBLISHERS B.V. AMSTERDAM, NL, vol. 24, no. 1-2, October 2003 (2003-10), pages 77-81, XP004463619 ISSN: 0925-3467 the whole document	3